

## On two frogs of the family Microhylidae from Andamans including a new species

R S PILLAI

Zoological Survey of India, Madras 600 004

MS received 19 April 1977

**Abstract.** *Microhyla chakrapanii* sp. nov. and *Microhyla inornata* Boul. are being described and reported respectively from the Andaman Island.

**Keywords.** *Microhyla chakrapanii*; *Microhyla inornata*.

### 1. Introduction

While studying a small collection of frogs brought from Andaman Island by the survey party led by S Chakrapani in 1972, the author came across two examples of Microhylids. The larger of the two which is a male belongs to a new species while the smaller example, a juvenile, is provisionally referred to as *Microhyla inornata* Boul. It may be remarked that while some Ranid frogs are known from Andamans (Boulenger 1920) the Microhylid fauna of the island is unknown.

Family : Microhylidae  
Genus : *Microhyla* Tschudi  
*Microhyla chakrapanii* sp. nov. (figure 1)

### 2. Diagnosis

Small frog with a moderately stout habitus, digits without median groove on upper side, fingers devoid of discs at tip, outer metacarpal tubercle with a cleft, toes with distinct discs, webbed at base and with two metatarsal tubercles.

### 3. Description

**Head.**—Broader than long. Snout obtusely rounded, as long as or slightly longer than eye. Canthus rostralis rounded, loreal region nearly vertical, nostril closer to tip of snout than to eye, their distance being less than interorbital space. Eye with circular pupil, its diameter slightly less than interorbital space which in turn is one and a half times the width of upper eyelid. Tympanum hidden; tongue oval, entire, free behind.



Figure 1. Dorsal view of *Microhyla chakrapanii* Pillai

**Forelimbs.**—Short and thin. Fingers free, tips slightly swollen, not dilated into discs, without median longitudinal groove on upper side. First finger shorter than second which is a little shorter than fourth. Subarticular tubercles moderate, outer metacarpal tubercle heart-shaped with a cleft anteriorly.

**Hindlimbs.**—Fairly long, about  $1\frac{1}{2}$  times the length from tip of snout to vent. Heels overlap when limbs are folded at right angles to the body. Tibio-tarsal articulation of the adpressed hindlimb just reaching eye. Tibia about as long as forelimb and 3 times as long as broad. Toes with discs which are broader than long. Median longitudinal cleft on upper side absent but a transverse groove is present on all discs at their anterior extremity. Terminal phalanges simple. Toes webbed at base, the membrane midway between third and fourth digits extending only up to the hind end of the proximal tubercle on third toe. Digits with lateral ridges, third longer than fifth. Subarticular tubercles fairly prominent. Two small metatarsal tubercles, outer one round and inner elongated.

**Skin.**—Smooth above; throat, chest and part of belly rough. Area around vent and ventral part of thighs granular. Tibia with minute tubercles dorsally. A faint glandular fold from the posterior corner of eye to the forelimb and a chain of pustules bordering it in front.

**Colour.**—(in alcohol) Dorsum brownish gray with two dark patches on either side of the mid-dorsal line at the level of shoulder. Another pair of broad bracket-shaped patches behind it. Two more ill-defined preanal bands which run into the thighs. A lateral band on each side extending from tip of snout almost to the groin, its upper margin sharply defined while the lower margin fades into the colour of belly. Upper sides of fore- and hindlimbs with dark patches. The specimen being male, gular region infusate.

**Measurement:—**

Total length (from tip of snout to vent)	22 mm.
Length of head (from tip of snout to angle of jaws)	5.5 mm.
Width of head (at angle of jaws)	7.5 mm.
Length of snout	2.5 mm.
Max. length of eye	2.5 mm.
Width of upper eye lid	2 mm.
Interorbital distance	3 mm.
Forelimb	13 mm.
Hindlimb	32 mm.

*Holotype*.—Adult male frog, loc, Mayabunder (east of Burma temple), North Andamans, coll. S Chakrapani, 13 October, 1972.

**4. Discussion**

Using the key to the various species of Microhyla (Parker 1934) with reference to the characters enumerated above one can run down to a position fairly close to *Microhyla achatina* Tschudi and *M. heymousi* Vogt. But both these differ from *M. chakrapanii* in the possession of a median cleft on the upper surface of the digital tips. *M. achatina* which is figured (van Kampen 1923) has in addition, an undivided outer metacarpal tubercle and better developed webbing while *M. heymousi* has discs on finger tips. In the absence of median clefts on digital discs *M. chakrapanii* resembles *M. palmipes* Boul. and *M. superciliaris* Parker but the well developed web on toes in these alone is sufficient to separate them from the present species. A combination of four characters viz. the short snout (slightly longer than eye), absence of median longitudinal grooves on digital discs, presence of discs only on toes and the rudimentary webbing distinguishes *M. chakrapanii* from all other species known under the genus and justifies the erection of a new species.

**5. *Microhyla inornata* Boul.**

The salient features of a single example of a small microhylid taken from South Point, Port Blair on 18-10-72 are given below. It is a juvenile measuring 10 mm from tip of snout to vent.

Body translucent, habitus stout, limbs thin. Snout about as long as the eye. Canthus rostralis rounded. Inter-orbital space broader than upper eyelid. Digits without discs or median clefts on upper side. Finger tips obtuse, outer metacarpal tubercle not divided. Toes free, slightly spatulate at tips, third longer than fifth, subarticular tubercles distinct. Two small metatarsal tubercles, the inner one elongated and outer smaller. Tibio-tarsal articulation of the adpressed hindlimb reaching temple. A very indistinct fold from eye to shoulder. Smooth above and below. Colour (in alcohol) light brown above. A lateral brownish band from tip of snout arching towards side of belly. A median brown patch on dorsum from shoulder level to vent with two extending arms towards groins. Limbs with brown cross bars. Ventrally pale, stipled with black which run together to form irregular reti-

culum on belly including a middle line and two arched bracket-shaped patterns on either side.

Although it is difficult to assign this example to any of the known species with exactitude, the main difficulties being its tiny size and immature condition, it would be safe to refer it to *Microhyla inornata* Boul. The general build and colour pattern though reminiscent of that in *M. ornata* (Dum. and Bibr.), the condition of outer metacarpal tubercle, webbing and metatarsal tubercles suggest a closer similarity with *M. inornata*. *M. inornata* is distributed along Southern Burma, Siam, Cochin-China, Malay Peninsula and Sumatra. It has not been recorded from either Andamans or from the Indian Mainland.

### Acknowledgements

The author is thankful to S Khera, and A G K Menon for facilities. He is indebted to A Daniel for making available the material for study.

### References

- Boulenger G A 1920 *Rec. Indian Mus.* 20 1-226  
Parker H W 1934 in *A monograph of the frogs of the family Microhylidae*; (British Museum, Natural History, London) p. 125  
Van Kampen P N 1923 in *The Amphibia of the Indo-Australian Archipelago*; Leiden E.J Brill Ltd.